

**Listing of Claims**

**What is claimed is:**

- 1) (Original) A device for the determination of the frictional characteristics of large surfaces comprising:**
  - A) a frame;**
  - B) a drive motor mounted in the frame;**
  - C) a drive train;**
  - D) a horizontal measurement arm having a proximate end attached to the drive train and capable of rotation about a circular path induced by the drive train and a distal end;**
  - E) a spherical frictional slider attached to the distal end that contacts and slides along a surface under evaluation; and**
  - F) a tangential force detector on the measurement arm to measure the resistance encountered by the spherical frictional slider as it slides along the surface under evaluation.**
- 2) (Original) The device of claim 1 further including a first housing about the spherical frictional slider and engaging the spherical friction slider.**
- 3) (Original) The device of claim 2 wherein the first housing frictionally engages the spherical friction slider.**

- 4) (Original) The device of claim 2 further including an angular position sensor that determines the relative location of the measurement arm about the circular path.
- 5) (Original) The device of claim 2 further including a lift mechanism for bringing the spherical friction slider into and out of contact with the surface under evaluation.
- 6) (original) The device of claim 2 further including a loading assembly that imposes a load on the measurement arm in a direction normal to the surface under evaluation.
- 7) (Currently Amended) The device of claim [[5]] 6 further including a load force detection device to detect the amount of load applied to the measurement arm.
- 8) (Original) The device of claim 2 further including a vertical deviation detector on the measurement arm to detect changes in the topography of the surface under evaluation.
- 9) (Original) The device of claim 2 further including a second housing that contains the entire frictional testing system.

**10) (Original) The device of claim 2 further including a data acquisition system for the collection, analysis and archiving of data generated by the tangential force detector.**

**11) (Original) A device for the determination of the frictional characteristics of large surfaces comprising:**

- A) a frame;**
- B) a drive motor mounted in the frame;**
- C) a drive train;**
- D) a horizontal measurement arm having a proximate end attached to the drive train and capable of rotation about a circular path induced by the drive train and a distal end;**
- E) a spherical frictional slider attached to the distal end that contacts and slides along a surface under evaluation;**
- F) a tangential force detector on the measurement arm to measure the resistance encountered by the spherical frictional slider as it slides along the surface under evaluation;**
- G) a first housing about the spherical frictional slider and engaging the spherical friction slider;**
- H) an angular position sensor that determines the relative location of the measurement arm about the circular path;**
- I) a lift mechanism for bringing the spherical friction slider into and out of contact with the surface under evaluation;**

- J) a loading assembly that imposes a load on the measurement arm in a direction normal to the surface under evaluation;**
- K) a vertical deviation detector on the measurement arm to detect changes in the topography of the surface under evaluation; and**
- L) a data acquisition system for the collection, analysis and archiving of data generated by the tangential force detector, the vertical deviation detector, the load detector and the angular position sensor.**

**12) (Original) The device of claim 11 further including a housing enclosing the device.**

**13) (Original) The device of claim 2 further including a Go/No-Go acceptance system.**

**14) (original) The device of claim 11 further including a Go/No-Go acceptance system.**

**15) (Original) The device of claim 2 wherein the spherical friction slider comprises a ball.**